INDUSTRIAL FISHERY PRODUCTS

SITUATION & OUTLOOK

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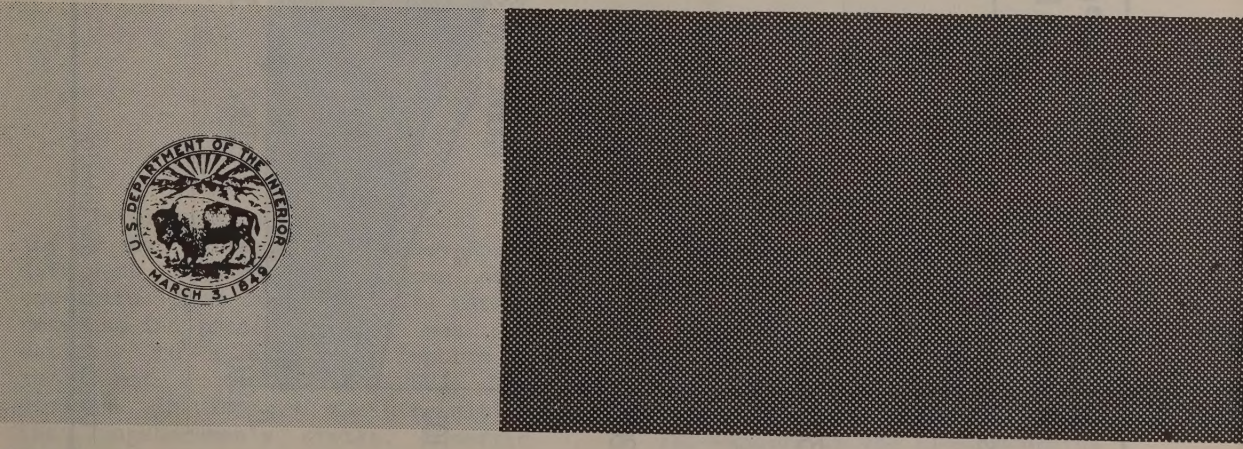
Current Economic Analysis · I6 · July 1969



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BUREAU OF COMMERCIAL FISHERIES

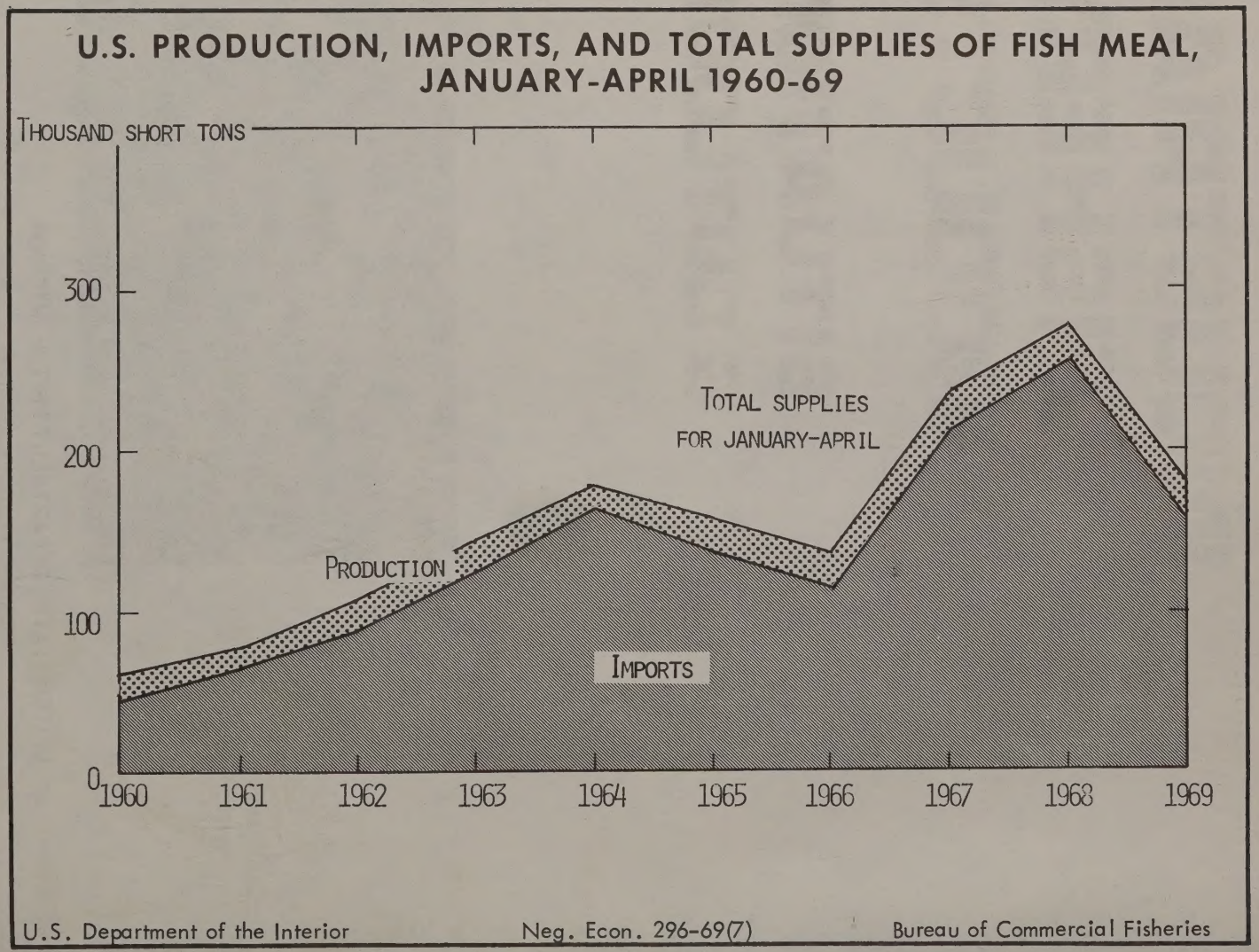
U.S. PRODUCTION, IMPORTS, AND TOTAL SUPPLIES OF FISH MEAL, JANUARY-APRIL 1960-69
THOUSAND SHORT TONS
300
200
100
0
1960
1961
1962
1963
1964
1965
1966
1967
1968
1969
TOTAL SUPPLIES FOR JANUARY-APRIL
PRODUCTION
IMPORTS
U.S. Department of the Interior
Neg. Econ. 296-69(7)
Bureau of Commercial Fisheries

Figure 1

INDUSTRIAL FISHERY PRODUCTS

SITUATION AND OUTLOOK

Approved by the Bureau of Commercial Fisheries Situation and Outlook Board, July 29, 1969

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SUMMARY

FISH MEAL

Total supplies of fish meal in the United States in January-April 1969 were 180,200 tons[1]--down over one-third from last year. The marked decrease in total supplies was due entirely to a decrease in imports in the first 2 months of 1969. The decrease in imports was a result of the longshoremen's strike. Domestic meal production was up 3 percent.

World production of fish meal in January-April was an estimated 1,350,000 metric tons (1,488,100 short tons)--down 2 percent from 1968. About 87 percent of this meal was made by FEO[2] countries. Peru alone produced 61 percent of the world's meal.

FEO exports in the first 4 months of 1969 were 6 percent less than in

[1]Short tons are used in this report unless otherwise specified.
[2]Fishmeal Exporters Organization; member countries are Angola, Chile, Iceland, Norway, Peru, South Africa, and South West Africa.

1968; however, exports for March and April were record high for those months. Peru exported 710,400 metric tons (783,100 short tons), or about 70 percent of total FEO exports.

Only 12 percent of total FEO exports went to the United States in January-April 1969--compared to 20 percent in 1968. The longshoremen's strike was the major cause of the lower exports to the United States.

Stocks of fish meal held by FEO countries on May 1, 1969, were 647,700 metric tons (714,000 short tons)--up 16 percent from the beginning of the year but down 27 percent from stocks held at the same time last year. About three-fourths of the May 1 stocks were held by Peru.

Three factors that are important in determining how much fish meal is used in the United States are broiler placements, the price of fish meal, and prices of competing feed ingredients. One of these factors--broiler placements--pointed to an increase in the use of fish meal in the first half of 1969. Placements in January-May were up 7 percent over last year. However, the other two factors--fish meal prices and prices of competing ingredients--did not favor the use of fish meal in the first part of 1969. In April, the price of fish meal increased about $20 per ton on both the East and West Coasts. The average price of menhaden meal was $174 per ton, f.o.b. East Coast points in May 1969; in the same month the average price of Peruvian meal was $161 per ton, f.o.b. East Coast ports. In June, the average prices were $172.60 and $168.00 per ton, respectively. In addition to these relatively high absolute prices of fish meal, the price of fish meal in relation to competing products also was high. The ratio between the price of Peruvian fish meal and the price of soybean meal, a major competitor, rose from 1.39:1 in September 1968 to 1.90:1 in May and June 1969.

If these relatively high fish meal prices and price ratios continue through the third quarter of 1969, the use of fish meal could fall considerably as it did during the period of high prices in 1965 and 1966. We estimate that less than 250,000 tons of fish meal would be used in the third quarter at current prices, even though the U.S. Department of Agriculture estimates that broiler placements will be about 7 percent over last year. This estimate is at least one-fourth below last year's third quarter consumption.

We estimate domestic production for July-September to be 105,000-125,000 tons and imports to be 90,000 to 110,000 tons, or total supplies of 195,000 to 235,000 tons. Last year in the third quarter, total supplies were about 338,500 tons.

FISH SOLUBLES

The total amount of fish solubles available for use in the United States in January-April was 8,800 tons--14 percent more than last year. Nearly all of this product was produced domestically. Only 35 tons were imported in the first 4 months--compared to 1,000 tons in 1968.

Declining prices of fish solubles in the first 5 months of 1969 indicated a relatively weak U.S. demand for solubles in that period. Prices of menhaden solubles fell from an average of $51.25 per ton f.o.b. East Coast ports in January to $47.50 per ton in May. In the last part of May, prices began to increase and in June averaged $49.75 per ton. This increase in price could indicate an increase in the demand for fish solubles. In May of this year, apparent consumption of fish solubles was about 11,100 tons--up over three-fourths from last year.

We estimate that 35,000 to 42,000 tons of fish solubles will be produced in the third quarter of 1969.

FISH OIL

Stocks of fish oil on May 1, 1969, were 39.1 million pounds-the lowest stocks since May 1, 1961. Domestic production of fish oil in January-April was 7.4 million pounds--up 30 percent from 1968.

The United States consumed 11.2 million pounds of fish oil in the first 4 months of 1969--up 5 percent from last year. Exports were 53.8 million pounds, or nearly triple the amount exported in 1968. Over 70 percent of these exports went to West Germany and the Netherlands. Increased exports of fish oil to the EC[3] countries probably are a result of the recent proposal for a use tax on fish and vegetable oils.

As a result of the increased use of fish oil in the United States, the average price of menhaden oil increased from 4.4 cents per pound in December 1968 to 5.3 cents in April. The average dropped slightly in May to 5.25 cents per pound--the same as last year.

We estimate that 8 to 12 million pounds of fish oil will be used in the third quarter--slightly above last year's consumption. Exports are estimated to be at least 21 million pounds and most of these exports will again go to EC countries.

Domestic production in the third quarter is estimated to be 75 to 95 million pounds. Stocks are expected to increase at least 25 million pounds over the 3-month period.

[3] European Communities; also referred to as the Common Market; formerly European Economic Community.

FISH MEAL

REVIEW: JANUARY-APRIL 1969

Supply

Supplies of Fish Meal in January-April--Down One-Third from 1968

Total U.S. supplies of fish meal in January-April 1969 (excluding stocks, which are not reported) were 180,200 tons--down 35 percent from 1968 and down 8 percent from the 1964-68 average (table 1 and figure 1). The marked decrease in total supplies of fish meal in January-April 1969 was due entirely to a decrease in imports in the first 2 months of 1969. Imports in January were down 70 percent from last year and imports in February were down 44 percent primarily because of the longshoremen's strike in the 2 months. About 88 percent of total supplies in the 4-month period were imports, whereas in 1968, 92 percent were imports.

Table 1.--Total fish meal available in the United States: production plus imports, by month, 1962-69[1]

Month	1962	1963	1964	1965	1966	1967	1968[2]	1969[2]
	Thousand short tons							
January	28.3	20.8	33.1	19.2	18.1	47.7	93.4	29.6
February	22.4	43.0	37.6	28.4	27.5	48.3	51.8	30.8
March	22.7	43.2	43.2	57.5	39.2	79.1	59.2	49.2
April	35.8	35.0	64.1	51.0	50.8	60.0	74.0	70.6
May	65.8	71.4	91.6	55.6	55.3	56.2	89.4	
June	87.6	53.8	83.5	93.1	82.6	74.1	111.6	
July	81.5	82.1	74.1	68.8	85.5	84.0	136.0	
August	68.7	87.7	70.0	55.8	90.8	108.4	123.6	
September	45.4	60.0	56.9	27.9	66.5	76.0	78.9	
October	48.7	49.9	28.3	17.1	46.4	61.5	68.9	
November	22.1	30.8	36.4	17.8	54.7	78.4	84.9	
December	21.7	39.7	45.5	21.0	42.8	79.2	110.2	
Total[3]	550.7	617.4	664.3	513.0	660.2	852.9	1,081.9	

[1]Excludes meal made from shellfish.
[2]Preliminary.
[3]Figures may not add to total because of rounding.

Production in January-April 1969--Up 3 Percent from 1968

The United States produced about 22,200 tons of fish meal in the first 4 months of 1969--up 3 percent from 1968 and up 6 percent from the most recent 5-year average (tables 2 and 3). Meal produced from menhaden was 4,600 tons or one-fifth of total production-about the same as last year (tables 3 and 4). Ninety-five percent of the menhaden meal was produced in the Gulf Coast area in January-April 1969, whereas in 1968, 76 percent was produced in the Gulf Coast area (tables 4 and 5).

About 10,500 tons of meal were made from anchovies, mackerel, and tuna--37 percent more than last year (table 3). The anchovy reduction fishery showed marked improvement from last year. The 1968-69 anchovy season began on August 1 in the northern area of California and on September 15 in the southern area. The season closed May 15, 1969. Total landings for the season were about 27,200 tons--over four times landings in the 1967-68 season, but down more than one-fifth from landings in the 1966-67 season. The anchovy quota this season was 75,000 tons--2.8 times actual landings. The California Department

Table 2.--U.S. production of fish meal by month, 1962-69[1]

Month	1962	1963	1964	1965	1966	1967	1968[2]	1969[2]
	Thousand short tons							
January	2.9	2.3	2.1	3.2	2.8	5.7	2.5	2.4
February	3.6	2.9	2.3	2.9	2.3	3.9	2.7	3.2
March	4.2	2.7	3.1	3.8	5.7	4.9	4.5	4.0
April	9.4	8.4	8.1	11.3	11.3	10.1	11.8	12.6
May	40.5	40.3	32.1	25.1	20.3	17.2	19.0	
June	61.2	35.3	49.0	48.6	36.9	33.5	30.7	
July	55.6	38.9	45.2	50.1	36.5	36.4	44.2	
August	40.4	43.7	33.5	42.0	31.4	33.6	36.2	
September	31.7	24.7	22.8	21.1	23.2	20.3	29.6	
October	36.0	18.5	8.6	12.3	11.0	11.4	20.2	
November	10.2	13.4	10.7	12.1	18.9	15.4	14.2	
December	2.7	10.0	7.7	9.8	12.0	9.0	11.0	
Total[3]	298.4	241.1	225.2	242.3	212.4	201.4	226.6	

[1]Excludes meal made from shellfish.
[2]Preliminary.
[3]Figures may not add to total because of rounding.

of Fish and Game reported that considerable fishing time was lost because of delays in unloading vessels at the plants.

About 7,100 tons of meal were made from groundfish, herring, and other fish in the "unclassified" category--down one-fourth from last year.

Table 3.--U.S. production of fish meal by raw material source, January-April, 1964-68 average, 1968, and 1969

Source	1964-68 average		1968		1969[1]	
	Thousand short tons	Percent	Thousand short tons	Percent	Thousand short tons	Percent
Alewives	0.6	2.9	0.1	0.5	[2]	-
Groundfish	2.2	10.5	2.4	11.2	2.1	9.5
Herring	1.1	5.2	1.6	7.4	0.8	3.6
Menhaden[3]	4.8	22.9	4.3	20.0	4.6	20.7
Tuna, mackerel, and anchovies	8.3	39.5	7.6	35.3	10.5	47.3
Unclassified	4.0	19.0	5.5	25.6	4.2	18.9
Total	21.0	100.0	21.5	100.0	22.2	100.0

[1]Preliminary.
[2]Included in "unclassified."
[3]Includes a small quantity of other species.

Table 4.--Production of menhaden meal by area and by month, 1962-69[1]

Month	1962	1963	1964	1965	1966	1967	1968	1969[2]
	Thousand short tons							
	Atlantic Coast							
January	0.2	-	0.1	0.2	0.5	-	-	-
February	-	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-	-
April	0.7	1.1	0.9	0.6	0.2	1.1	1.0	0.2
May	18.0	12.8	5.4	3.9	1.1	1.9	2.7	
June	30.5	12.9	12.2	12.6	4.6	6.6	7.1	
July	23.2	13.5	11.7	8.8	6.0	6.0	10.9	
August	15.7	11.6	11.5	12.7	7.2	6.8	7.1	
September	12.3	9.8	7.2	7.5	5.8	3.5	4.9	
October	23.8	6.1	4.4	6.5	5.7	4.5	8.3	
November	6.5	8.9	7.2	8.5	14.8	10.2	9.2	
December	0.3	6.3	5.0	6.1	7.1	6.2	6.2	
Total[3]	131.2	83.0	65.6	67.4	53.0	46.9	57.5	
	Gulf Coast							
January	-	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-	-
March	-	-	-	-	0.1	-	-	-
April	3.3	4.0	2.0	6.7	3.7	3.7	3.2	4.4
May	13.9	22.0	17.3	14.9	12.9	8.4	8.8	
June	23.1	16.7	27.5	27.8	22.5	16.7	15.4	
July	25.0	18.0	22.3	30.4	18.9	18.6	21.7	
August	18.0	24.4	14.5	20.7	12.4	16.4	18.4	
September	15.0	9.8	10.8	7.5	11.4	7.5	14.4	
October	9.4	6.3	0.3	0.6	-	0.9	4.0	
November	0.8	[1]	-	-	-	-	-	
December	-	-	-	-	-	-	-	
Total[3]	108.5	101.2	94.7	108.6	81.9	72.2	85.8	
	Total[3]							
January	0.2	-	0.1	0.2	0.5	-	-	-
February	-	-	-	-	-	-	-	-
March	-	-	-	-	0.1	-	-	-
April	4.0	5.1	2.9	7.3	3.8	4.8	4.3	4.6
May	31.9	34.8	22.7	18.8	14.0	10.3	11.5	
June	53.6	29.6	39.7	40.4	27.1	23.3	22.4	
July	48.2	31.5	34.0	39.2	24.9	24.7	32.6	
August	33.7	36.0	26.0	33.4	19.7	23.2	25.4	
September	27.3	19.6	18.0	15.0	17.2	11.0	19.3	
October	33.2	12.4	4.7	7.1	5.7	5.4	12.4	
November	7.3	8.9	7.2	8.5	14.8	10.2	9.2	
December	0.3	6.3	5.0	6.1	7.1	6.2	6.2	
Total[3]	239.7	184.2	160.3	176.0	135.0	119.1	143.3	

[1]Includes a small amount of meal from other species.
[2]Preliminary.
[3]Figures may not add to total because of rounding.

Table 5.--Menhaden landings by area, January-April, 1964-68 average, 1968, and 1969

Area	1964-68 average		1968		1969[1]	
	Million pounds	Percent	Million pounds	Percent	Million pounds	Percent
Chesapeake	2.7	6.0	-	-	-	-
South Atlantic	6.2	13.8	6.2	17.6	2.1	4.8
Total Atlantic[2]	8.9	19.9	6.2	17.6	2.1	4.8
Gulf Coast	35.9	80.1	29.1	82.4	42.0	95.2
Total U.S.	44.8	100.0	35.3	100.0	44.1	100.0

[1]Preliminary.
[2]Figures may not add to total because of rounding.

Imports of Fish Meal--Down 38 Percent from 1968

Imports of fish meal in January-April 1969 were 158,000 tons-down 38 percent from 1968 and down 10 percent from the 1964-68 average (tables 6 and 7). The longshoremen's strike in January and February was the major reason for the decrease in imports. Imports in January were less than one-third those in 1968, and imports in February were a little more than one-half those in 1968. Imports in March and April were also down, but not as much as the first 2 months of the year.

About 70 percent of the imports came from Peru in the first 4 months of 1969--compared to 78 percent in 1968 (table 7 and figure 2). About 14 percent came from Chile in January-April 1969 compared to 8 percent in 1968, and 13 percent came from Canada compared to 6 percent last year. Only 1,800 tons of meal came from Norway in January-April 1969--compared to 18,900 tons in 1968. Most of Norway's exports went to France and the United Kingdom where demand has increased in recent months.

Table 6.--U.S. imports of fish meal by month, 1962-69

Month	1962	1963	1964	1965	1966	1967	1968[1]	1969[1]
	Thousand short tons							
January	25.4	18.5	31.0	16.0	15.3	42.0	90.9	27.2
February	18.8	40.1	35.3	25.5	25.2	44.4	49.0	27.6
March	18.5	40.5	40.1	53.7	33.6	74.1	54.7	45.2
April	26.4	26.6	56.0	39.7	39.5	50.0	62.3	58.0
May	25.3	31.1	59.5	30.5	35.0	39.0	70.4	
June	26.5	18.5	34.5	44.5	45.6	40.6	80.9	
July	25.9	43.2	28.9	18.7	49.0	47.6	91.7	
August	28.3	44.0	36.5	13.9	59.4	74.8	87.4	
September	13.7	35.3	34.1	6.8	43.3	55.7	49.3	
October	12.7	31.4	19.7	4.8	35.4	50.1	48.8	
November	11.9	17.4	25.7	5.7	35.7	63.0	70.7	
December	19.0	29.7	37.8	11.0	30.8	70.2	99.3	
Total[2]	252.3	376.3	439.1	270.7	447.8	651.5	855.3	

[1]Preliminary.
[2]Figures may not add to total because of rounding.

Table 7.--U.S. imports of fish meal by country of origin, January-April, 1964-68 average, 1968, and 1969

Country of origin	1964-68 average		1968		1969	
	Thousand short tons	Percent	Thousand short tons	Percent	Thousand short tons	Percent
Canada	15.3	8.7	14.3	5.6	21.2	13.4
Chile	12.2	6.9	20.2	7.9	21.6	13.7
Norway	12.3	7.0	18.9	7.3	1.8	1.1
Peru	131.7	75.0	201.3	78.4	110.0	69.6
South Africa and South West Africa	1.2	0.7	-	-	-	-
Other	2.9	1.7	2.1	0.8	3.5	2.2
Total[1]	175.7	100.0	256.9	100.0	158.0	100.0

[1]Figures may not add to total because of rounding.

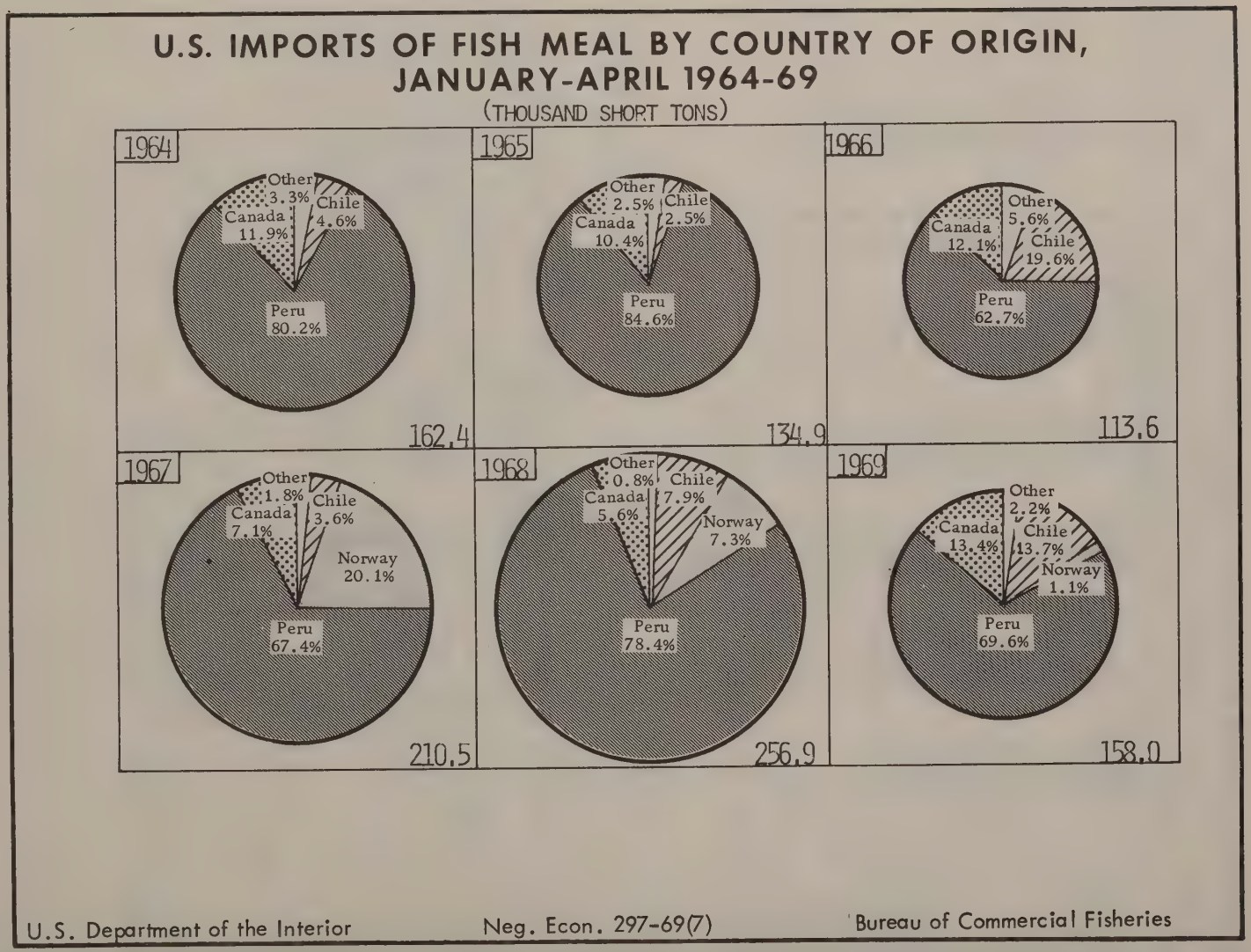

U.S. IMPORTS OF FISH MEAL BY COUNTRY OF ORIGIN,
JANUARY-APRIL 1964-69
(THOUSAND SHORT TONS)
1964
Other 3.3%
Chile 4.6%
Canada 11.9%
Peru 80.2%
162.4
1965
Other 2.5%
Chile 2.5%
Canada 10.4%
Peru 84.6%
134.9
1966
Other 5.6%
Canada 12.1%
Chile 19.6%
Peru 62.7%
113.6
1967
Other 1.8%
Chile 3.6%
Canada 7.1%
Norway 20.1%
Peru 67.4%
210.5
1968
Other 0.8%
Chile 7.9%
Canada 5.6%
Norway 7.3%
Peru 78.4%
256.9
1969
Other 2.2%
Canada 13.4%
Chile 13.7%
Norway 1.1%
Peru 69.6%
158.0
U.S. Department of the Interior
Neg. Econ. 297-69(7)
Bureau of Commercial Fisheries

Figure 2

Table 8.--U.S. imports of fish meal as a percent of total fish meal available in the United States[1], by month, 1962-69

Month	1962	1963	1964	1965	1966	1967	1968	1969
	Percent							
January	89.8	88.9	93.6	83.3	84.5	88.0	97.3	91.9
February	83.9	93.2	93.9	89.8	91.6	91.9	94.6	89.6
March	81.5	93.8	92.8	93.4	85.7	93.7	92.4	91.9
April	73.7	76.0	87.4	77.8	77.8	83.3	84.2	82.2
May	38.4	43.6	65.0	54.8	63.3	69.4	78.7	
June	30.2	34.4	41.3	47.8	55.2	54.8	72.5	
July	31.8	52.6	39.0	27.2	57.3	56.7	67.4	
August	41.2	50.2	52.1	24.9	65.4	69.0	70.7	
September	30.2	58.8	59.9	24.4	65.1	73.3	62.5	
October	26.1	62.9	69.6	28.1	76.3	81.5	70.7	
November	53.8	56.5	70.6	32.0	65.3	80.4	83.3	
December	87.6	74.8	83.1	52.4	72.0	88.6	90.1	
Average[2]	45.8	60.9	66.1	52.8	67.8	76.4	79.0	

[1]Production and imports.
[2]Weighted average.

World Fish Meal Production in January-April--Down 2 Percent from 1968

World production of fish meal in January-April 1969 was an estimated 1,350,000 metric tons (1,488,100 short tons)--down 2 percent from 1968 but up 11 percent from the 1964-68 average (table 9). These comparisons do not include Mainland China, Japan, or the U.S.S.R. Those countries producing less in the first 4 months of 1969 than they did in 1968 were Denmark, Norway, Peru, South Africa and South West Africa, and the United Kingdom.

About 87 percent of the reported world fish meal in the first 4 months of 1969 was made by FEO countries--about the same as last year (table 9). Peru alone produced 61 percent of world meal in January-April 1969--the same percent as last year. South Africa and South West Africa were the second biggest producers with 8 percent of world production, followed by Chile and Norway each with about 6 percent. The United States produced about 1 percent of reported world meal in the first 4 months of each of the last few years.

Table 9.--FEO[1] and total world production of fish meal, January-April 1964-68 average, 1968, and 1969

Country	1964-68 average		1968		1969[2]	
	Thousand metric tons	Percent	Thousand metric tons	Percent	Thousand metric tons	Percent
Angola	16.3	1.5	18.0	1.5	[3]32.0	2.7
Chile	59.9	5.5	66.0	5.4	77.7	6.6
Iceland	30.0	2.8	26.0	2.1	44.4	3.8
Norway	106.7	9.9	100.3	8.3	87.9	7.4
Peru	747.2	69.4	842.9	69.5	824.2	69.9
South Africa and South West Africa	117.2	10.9	159.8	13.2	[3]113.0	9.6
Total FEO[4]	1,077.2	100.0	1,213.0	100.0	[3]1,179.2	100.0
Total world[5]	1,213.2	-	1,380.5	-	[3]1,350.0	-
Percent FEO is of world	-	88.8	-	87.9	-	87.3

[1]Fishmeal Exporters Organization: members are those countries listed in the table.
[2]Preliminary.
[3]Estimated.
[4]Figures may not add to total because of rounding.
[5]FEO countries plus Belgium, Canada, Denmark, France, Sweden, the United Kingdom, the United States, and West Germany. Japan and the U.S.S.R. are not included for 1968 and 1969.

FEO Fish Meal Production--Down 3 Percent from 1968

FEO countries produced an estimated 1,179,200 metric tons (1,299,800 short tons) in January-April 1969--down 3 percent from 1968 and up 9 percent from the 1964-68 average (table 9). Peru made about 70 percent of the meal in the 4-month period in 1969--the same percent as last year (table 9). Peru's production in January-April 1969 was 824,200 metric tons (908,500 short tons) down 2 percent from 1968 but up 10 percent from the 1964-68 average. Production of 325,500 metric tons in March and 240,800 metric tons in April 1969 was the highest ever recorded for those 2 months.

On April 18 the Peruvian government announced a 9.5-million metric ton limit on the anchovy catch for the 1968-69 season--the same limit as for the 1967-68 season. The 1968-69 season for most plants in Peru closed on May 31, 1969, and will reopen September 1.

South Africa and South West Africa produced an estimated 113,000 metric tons (124,600 short tons) in January-April 1969 or 10 percent of total FEO production. This production was 29 percent below 1968 and 4 percent less than the 1964-68 average.

Norway's meal production of 87,900 metric tons (96,900 short tons) in the first 4 months of 1969 was 12

percent less than production in 1968 (table 9). Norwegian fish meal production was ahead of last year until April when production dropped to less than half that of last year. Production of herring meal in the 4-month period continued to be quite low--running less than 1 percent of Norway's total meal. Nearly all of the meal in the January-April period in 1968 and 1969 was made from capelin.

Chile produced 77,700 metric tons (85,600 short tons) in the first 4 months of 1969, or 7 percent of total FEO production. Chile's production in 1969 was 18 percent more than in 1968 and 30 percent more than the 1964-68 average.

FEO Exports in January-April--Down 6 Percent from Last Year

Member countries of the Fishmeal Exporters Organization exported an estimated 1,018,900 metric tons (1,123,100 short tons) in the first 4 months of 1969--down 6 percent from exports in the first 4 months of 1968 but up 20 percent from the 1964-68 average (tables 10 and 11). Exports in March and April were record high for those months.

Peru exported 710,400 metric tons (783,100 short tons)-down slightly from last year (table 11). Peru's exports were about 70 percent of total FEO exports. The second biggest exporter was Norway, with about 11 percent of total exports. Estimated exports for Angola were nearly three times those of last year.

Only 12 percent of total FEO exports went to the United States in January-April 1969--compared to 20 percent in 1968 and a 1964-68 average of 17 percent (table 11). Exports to the United States in January and February were quite low mainly because of the longshoremen's strike at most U.S. ports. Only 8 percent of FEO exports went to the United States in January and February 1969--compared to 21 percent in 1968. FEO exports to the United States in March and April also were below 1968.

Only 14 percent of Peru's exports went to the United States in the first 4 months of 1969, compared to 25 percent in 1968 and a 1964-68 average of 21 percent.

In March of this year, the Peruvian government passed a new law re-establishing an ad valorem tax of 5 percent on exports of fishery products. The tax was supposed to have gone into effect April 1, 1969, but because of intense industry opposition, the Peruvian government suspended the imposition of the tax for 2 months. Therefore, the end of the suspension coincided with the end of the 1968-69 anchovy season. The suspension affects only the tax on fish meal and not other individual taxes on fish and whale oil.

While FEO exports to the United States dropped off in the first 4 months of the year, exports to France, East Germany, the Netherlands, Poland, Spain, Sweden, and Yugoslavia increased over last year (table 12). About 36 percent of FEO exports went to member countries of the EC (European Communities) in January-April 1969--compared to 34 percent in 1968 and 33 percent in 1967. Over half of the exports to the EC countries were to West Germany in 1968 and 1969, and over one-fifth were to the Netherlands. Exports to Spain and Yugoslavia showed the most marked increases--a 52-percent increase for Spain and a 71-percent increase for Yugoslavia.

Table 10.--Total FEO[1] exports of fish meal, and FEO exports to the United States, by month, 1964-68 average, 1968, and 1969

Month	1964-68 average			1968			1969[2]		
	Total FEO exports	FEO exports to the United States[3]		Total FEO exports	FEO exports to the United States[3]		Total FEO exports	FEO exports to the United States[3]	
	Thousand metric tons	Thousand metric tons	Percent	Thousand metric tons	Thousand metric tons	Percent	Thousand metric tons	Thousand metric tons	Percent
January	208.8	31.4	15.0	279.5	79.0	28.3	214.9	18.6	8.6
February	195.2	29.0	14.9	283.8	41.5	14.6	244.7	18.9	7.7
March	232.0	41.6	18.4	260.9	44.7	17.1	[4]279.0	35.7	12.8
April	213.6	40.9	19.1	259.8	52.8	20.3	[4]280.2	47.8	17.0
May	211.6	38.0	18.0	246.4	56.7	23.0			
June	208.7	40.4	19.4	277.8	68.7	24.7			
July	212.0	38.0	17.9	277.5	77.0	27.7			
August	174.6	44.0	25.2	198.9	71.0	35.7			
September	162.7	29.5	18.1	230.1	37.0	16.1			
October	170.8	23.8	13.9	248.4	35.5	14.3			
November	190.7	32.6	17.1	287.8	59.7	20.8			
December	231.8	41.0	17.7	291.4	84.6	29.0			
Total[5]	2,394.5	430.4	18.0	3,142.3	708.2	22.5			

[1]Fishmeal Exporters Organization: members are those countries listed in table 9.
[2]Preliminary.
[3]Based on imports of fish meal from FEO countries as reported by the U.S. Department of Commerce, Bureau of the Census.
[4]Estimated.
[5]Figures may not add to total because of rounding.

Table 11.--Total FEO[1] exports of fish meal, and FEO exports to the United States by member country, January-April 1964-68 average, 1968, and 1969

Country	1964-68 average			1968			1969[2]		
	Total FEO exports	FEO exports to the United States[3]		Total FEO exports	FEO exports to the United States[3]		Total FEO exports	FEO exports to the United States[3]	
	Thousand metric tons	Thousand metric tons	Percent	Thousand metric tons	Thousand metric tons	Percent	Thousand metric tons	Thousand metric tons	Percent
Angola	15.9	0.1	0.6	12.0	-	-	[4]34.0	-	-
Chile	52.6	11.0	20.9	59.8	18.4	30.8	54.6	19.6	35.9
Iceland	40.8	-	-	25.2	-	-	22.3	-	-
Norway	100.6	11.1	11.0	156.1	17.1	11.0	110.3	1.6	1.4
Peru	569.5	119.5	21.0	717.4	182.6	25.4	710.4	99.8	14.0
South Africa and South West Africa	70.1	1.1	1.6	113.7	-	-	87.3	-	-
Total[5]	849.6	142.9	16.8	1,084.2	218.1	20.1	[4]1,018.9	121.0	11.9

[1]Fishmeal Exporters Organization: members are those countries listed in the table.
[2]Preliminary.
[3]Based on imports of fish meal from FEO countries as reported by the U.S. Department of Commerce, Bureau of the Census.
[4]Estimated.
[5]Figures may not add to total because of rounding.

Table 12.--FEO exports of fish meal to the European Communities (EC), the United States, and other countries, January-April 1967, 1968, and 1969

Country	1967		1968		1969[2]	
	Thousand metric tons	Percent	Thousand metric tons	Percent	Thousand metric tons	Percent
EEC						
Belgium	22.2	2.9	22.7	2.1	23.5	2.3
France	24.2	3.1	24.1	2.2	26.1	2.6
Germany, West	117.0	15.1	207.6	19.1	196.4	19.3
Italy	32.4	4.2	37.0	3.4	37.1	3.6
Netherlands	57.5	7.4	79.3	7.3	82.8	8.1
Total[3]	(253.3)	(32.8)	(370.7)	(34.2)	(365.9)	(35.9)
United States	165.8	21.4	220.1	20.3	132.7	13.0
Others						
Australia	3.2	0.4	11.6	1.0	11.2	1.1
Czechoslovakia	25.8	3.3	24.1	2.2	16.8	1.6
Finland	6.8	0.9	14.3	1.3	10.3	1.0
Germany, East	22.4	2.9	39.7	3.7	44.7	4.4
Hungary	0.8	0.1	12.7	1.2	12.6	1.2
Japan	19.0	2.5	48.5	4.5	35.7	3.5
Mexico	12.9	1.7	28.1	2.6	28.1	2.8
Poland	22.8	2.9	32.6	3.0	41.7	4.1
Spain	33.3	4.3	30.2	2.9	45.9	4.5
Sweden	14.2	1.8	17.7	1.6	19.3	1.9
United Kingdom	107.8	13.9	142.7	13.2	132.2	13.0
Venezuela	9.8	1.3	11.2	1.0	8.6	0.8
Yugoslavia	30.3	3.9	11.8	1.0	20.2	2.0
Other	44.7	5.8	68.2	6.3	93.0	9.1
Total[3]	(353.8)	(45.8)	(493.4)	(45.5)	(520.3)	(51.1)
Total	772.9	100.0	1,084.2	100.0	1,018.9	100.0

[1]As reported by the Fishmeal Exporters Organization.
[2]March and April figures for Angola were estimated.
[3]Figures may not add to total because of rounding.

The EC Commission has proposed a use tax on vegetable oils and meals and fish oil and meal. The tax on fish meal would be $30 per metric ton, and would apply to both domestically produced and imported meal. One of the justifications given for the use tax is that it will help alleviate the various commodity surplus problems in the European Community. The tax on protein meal would increase the cost of that product, and therefore, tend to reduce its use in feed rations for cows, which would in turn slow down increases in milk production. In addition, the tax on vegetable and fish oils would encourage butter consumption, by making margarine relatively more expensive.

The EC Commission is also considering subsidizing the sale of nonfat dry milk. This subsidization, together with the use tax on fish meal, could make nonfat dry milk competitive with fish meal in animal rations.

The decision concerning the use tax has been postponed temporarily partly because of strenuous objections by the United States and certain groups in the EC. A decision on subsidizing nonfat dry milk should have been reached by June 30, since the pricing policy for the marketing year 1968-69 was in effect only to that date. By July 29, however, no decision had been made. It must be remembered that the above measures are Commission proposals only and likely will be altered before they are accepted by the Council of Ministers and the respective national governments.

FEO Stocks of Fish Meal Held May 1, 1969--Down One-Fourth from 1968

Member countries of FEO held an estimated 647,700 metric tons (714,000 short tons) of fish meal on May 1, 1969--down 27 percent from stocks held at the same time last year and down 4 percent from the 1964-68 average for that date (table 13). Peru's stocks on May 1, 1969, were down 31 percent from stocks held at the same time last year, and Norway's stocks were down 45 percent from last year.

Between January 1 and May 1, 1969, Norway's stocks decreased 46 percent. On the other hand, Peru's stocks increased one-fourth in the same period. Total FEO stocks increased 16 percent between January 1 and May 1 this year. Last year, FEO stocks increased only 8 percent in the same period.

About 76 percent of the total FEO stocks on May 1 were held by Peru--compared to 81 percent last year (table 13). Chile held 7 percent of the stocks--compared to only 2 percent last year. Iceland's share of the holdings were over twice as much this year as last.

Table 13.--FEO[1] fish meal stocks held May 1, 1964-68 average, 1968, and 1969

Country	1964-68 average		1968		1969[2]	
	Thousand metric tons	Percent	Thousand metric tons	Percent	Thousand metric tons	Percent
Angola	4.6	0.7	13.7	1.6	[3]12.3	1.9
Chile	19.0	2.8	20.5	2.3	47.8	7.4
Iceland	13.7	2.0	13.4	1.5	22.0	3.4
Norway	86.7	12.9	77.8	8.8	42.9	6.6
Peru	493.8	73.6	712.5	80.6	490.1	75.7
South Africa and South West Africa	53.7	8.0	46.4	5.2	[3]32.7	5.0
Total[4]	671.4	100.0	884.3	100.0	[3]647.7	100.0

[1]Fishmeal Exporters Organization: members are those countries listed in the table.
[2]Preliminary.
[3]Estimated.
[4]Figures may not add to total because of rounding.

Demand

Broiler Chick Placements--Up 7 Percent from Last Year

About 1.2 billion broiler chicks were placed on farms in the leading broiler-producing States in the first 5 months of 1969-7 percent more than the number placed in the same period last year (table 14). Placements in May were 8 percent over the same month last year. Prices paid for broilers in the first 5 months of 1969 also were up--averaging a half cent over the same period in 1968 (table 14). Increased broiler prices along with increased placements indicates a strong demand for broilers. Since mixed feed for broiler chicks is the major outlet for fish meal in the United States, it would appear that the use of fish meal in the first 5 months should have increased over last year. However, relatively high fish meal prices and high ratios between the price of fish meal and the prices of competing feed ingredients resulted in lower apparent usage compared with last year.

Soybean Meal Price--Climbed $6.50 in Four Months

Soybean meal is the major competitor of fish meal in the protein feed market. The average price of soybean meal (50 percent solvent) at Decatur, Ill., rose from $78.40 per ton in February 1969, to $84.90 in May (table 15). The May price was $3 more than in the same month last year. Even though soybean meal prices increased, prices of fish meal increased at a faster rate, so that the ratio between the price of Peruvian fish meal and the price of soybean meal reached a 3-year high in May of 1.9:1 (table 16).

Table 14.--Broiler chick placements in 22 States, and average broiler price at the farm, by month, 1966-69

Month	1966		1967		1968		1969[1]	
	Chicks placed	Broiler price	Chicks placed	Broiler price	Chicks placed	Broiler price	Chicks placed	Broiler price
	Million	Cents/lb.	Million	Cents/lb.	Million	Cents/lb.	Million	Cents/lb.
January	191.6	16.3	192.0	13.9	196.4	13.5	200.3	14.3
February	199.0	16.4	204.1	15.4	199.5	14.6	210.9	15.0
March	201.3	17.2	217.6	14.3	261.0	14.6	282.3	15.3
April	269.6	15.8	272.9	13.8	215.1	14.2	234.2	14.7
May	217.8	16.7	217.6	13.3	274.1	14.6	296.1	14.8
June	216.6	16.1	214.8	13.5	218.7	15.0		
July	262.0	16.1	259.6	14.7	208.5	15.5		
August	192.6	15.7	199.9	12.9	248.5	14.8		
September	187.0	14.6	224.7	12.6	178.3	14.1		
October	235.3	13.2	175.0	12.2	184.6	12.8		
November	188.8	13.5	185.7	11.5	242.1	13.6		
December	232.7	12.0	230.8	11.6	194.8	13.4		
Total placements[2] and average price[3]	2,594.4	15.3	2,594.7	13.4	2,621.7	14.3		

[1] Preliminary.
[2] Figures may not add to total because of rounding.
[3] Weighted average.

Sources: Commercial Broilers: Annual Production and Weekly Placements, U.S. Department of Agriculture, Statistical Reporting Service, and Poultry and Egg Situation, U.S. Department of Agriculture, Economic Research Service.

Table 15.--Average monthly price of soybean meal[1] at Decatur, Ill., 1964-69

Month	1964	1965	1966	1967	1968	1969
	Dollars per short ton					
January	85.40	75.40	85.00	89.30	81.30	79.50
February	82.60	77.20	86.20	85.20	80.20	78.40
March	82.30	76.10	80.00	83.70	80.40	80.10
April	80.00	78.40	82.40	80.70	80.90	81.30
May	74.20	77.70	89.00	80.10	81.90	84.90
June	73.20	85.10	101.00	87.20	89.10	88.20
July	72.90	86.00	104.10	85.00	92.00	
August	71.00	80.50	106.10	86.90	94.50	
September	77.10	89.20	97.90	87.60	95.50	
October	76.80	80.80	91.50	78.20	85.30	
November	72.70	84.50	86.40	78.10	79.40	
December	75.50	78.30	92.70	79.40	79.40	
Average[2]	77.00	80.75	91.85	83.45	85.00	

[1]50 percent protein, bulk.
[2]Simple average.

Source: Feed Market News, U.S. Department of Agriculture, Consumer and Marketing Service, Grain Division.

Table 16.--Ratio of Peruvian fish meal price[1] to soybean meal price[2] by month, 1962-69

Month	1962	1963	1964	1965	1966	1967	1968	1969
	Price ratio							
January	1.78	1.67	1.56	1.88	2.04	1.66	1.48	1.75
February	1.96	1.60	1.61	1.88	1.98	1.64	1.48	1.80
March	1.91	1.60	1.61	1.88	2.07	1.61	1.44	1.75
April	1.91	1.60	1.58	1.89	1.86	1.62	1.42	1.80
May	1.80	1.61	1.70	1.98	1.75	1.59	1.61	1.90
June	1.64	1.55	1.72	1.96	1.54	1.50	1.57	1.90
July	1.57	1.49	1.78	2.01	1.55	1.55	1.56	
August	1.55	1.40	1.87	2.25	1.52	1.51	1.46	
September	1.38	1.42	1.75	2.04	1.56	1.47	1.39	
October	1.66	1.53	1.82	2.29	1.56	1.59	1.51	
November	1.66	1.51	1.95	2.20	1.68	1.55	1.65	
December	1.67	1.55	1.87	2.30	1.64	1.52	1.74	
Average	1.69	1.54	1.73	2.05	1.71	1.57	1.52	

[1]F.o.b. East Coast ports for 65 percent protein meal, bagged, as quoted at New York City.
[2]Wholesale at Decatur, Ill., for 50 percent solvent meal, bulk.

Menhaden Meal Price--Highest in More than 3 Years

Prices of bagged menhaden meal in May and June of this year were $170 to $175 per ton f.o.b. East Coast points--about the same as the nominal prices quoted in the early part of 1966 and the late summer of 1965. The average price of menhaden meal in April was nominally quoted at $154 per ton (table 17 and figure 3). Prices rose to an average of $174 per ton in May. This increase in the price of menhaden meal occurred along with an increase in the price of Peruvian meal in the United States and in Europe. Prices of domestic fish meal, other than menhaden, also increased during this period.

Price of Peruvian Fish Meal--Climbed $30 in 3 Months

The average price of bagged Peruvian fish meal rose from about $140 per ton, f.o.b. East Coast ports, in the first week of April to about $170 the last week of June (table 18 and figure 4). The price rise was even greater on the West Coast where in Los Angeles, prices rose from an average of about $140 the first week in April to $180 the last week of June. Most of the price increase occurred in April, when prices rose about $20 on both the East and West Coast. Futures prices for Peruvian fish meal have also increased sharply. Some sales were made in July for delivery in August and September at about $180 per metric ton c.i.f. Hamburg, Germany.

The increase in prices since the first of April can be attributed to three factors. One of these factors is the effect the dock strike had on fish meal supplies in the United States. The strike was resumed on December 20 last year and lasted until February 15 for most ports. In addition to nearly 2 months of actual strike time, unloading was delayed because of port congestion, and a certain amount of time was required for new shipments of meal to arrive in the United States from Peru and other countries. Consequently, supplies of fish meal in the United States probably became quite low by about the middle of March. These lower supplies came at a time when the demand for fish meal was fairly strong. This supply-demand imbalance pushed prices up.

A second factor was the strong demand for fish meal in Europe in the first 4 months of 1969. When exports to the United States were slowed by the longshoremen's strike, exports to Europe increased. The increase in exports to Europe was not reflected in lower prices. On the contrary, prices were either steady or increased.

A third factor was a speculation that after fishing stopped on May 31 in Peru, stocks would be reduced quite rapidly, creating short supplies. This speculation also contributed to the bullish market.

Table 17.--Average monthly price of menhaden meal[1] f.o.b. East Coast points, 1964-69

Month	1964	1965	1966	1967	1968	1969
	Dollars per short ton					
January	132.00	144.15	[2]179.80	153.10	[2]131.00	149.25
February	130.00	146.25	[2]172.55	[2]154.00	[2]131.00	153.00
March	128.25	150.00	[2]170.60	[2]154.00	[2]131.00	153.00
April	128.00	153.00	[2]163.00	135.00	[2]131.00	[2]154.00
May	128.25	156.00	[2]153.80	135.80	[2]131.00	174.00
June	129.80	160.90	160.35	139.00	149.00	172.60
July	130.90	170.25	164.00	137.40	149.65	
August	131.00	172.10	169.00	137.10	149.00	
September	132.90	175.00	166.20	136.75	145.00	
October	140.20	185.40	160.00	136.00	141.60	
November	140.75	186.00	151.15	[2]132.00	140.50	
December	140.75	186.00	153.10	[2]131.60	145.10	
Average[3]	131.45	168.50	161.05	136.55	145.30	

[1]60 percent protein, bagged, as quoted at New York City.
[2]Nominal price as presented in the Oil, Paint and Drug Reporter.
[3]Average weighted by monthly production of menhaden meal.

Table 18.--Average monthly price of Peruvian fish meal[1] f.o.b. East Coast ports, 1964-69

Month	1964	1965	1966	1967	1968	1969
	Dollars per short ton					
January	133.25	141.60	173.00	148.20	120.20	139.50
February	133.25	144.90	170.90	140.00	119.00	141.00
March	132.40	142.70	165.80	134.50	116.00	140.50
April	126.00	148.40	153.75	130.50	115.20	146.80
May	126.10	153.75	155.40	127.70	131.90	161.00
June	125.70	166.50	155.50	131.25	140.00	168.00
July	130.00	172.90	161.00	131.60	143.20	
August	132.90	181.00	161.00	131.50	137.90	
September	134.70	182.50	152.25	128.90	132.75	
October	140.00	184.90	143.10	124.30	129.20	
November	141.50	186.00	144.80	121.00	131.00	
December	141.50	180.25	152.50	121.00	138.10	
Average[2]	131.95	154.65	156.40	130.15	130.95	

[1]65 percent protein, bagged, as quoted at New York City.
[2]Average weighted by monthly imports of Peruvian fish meal.

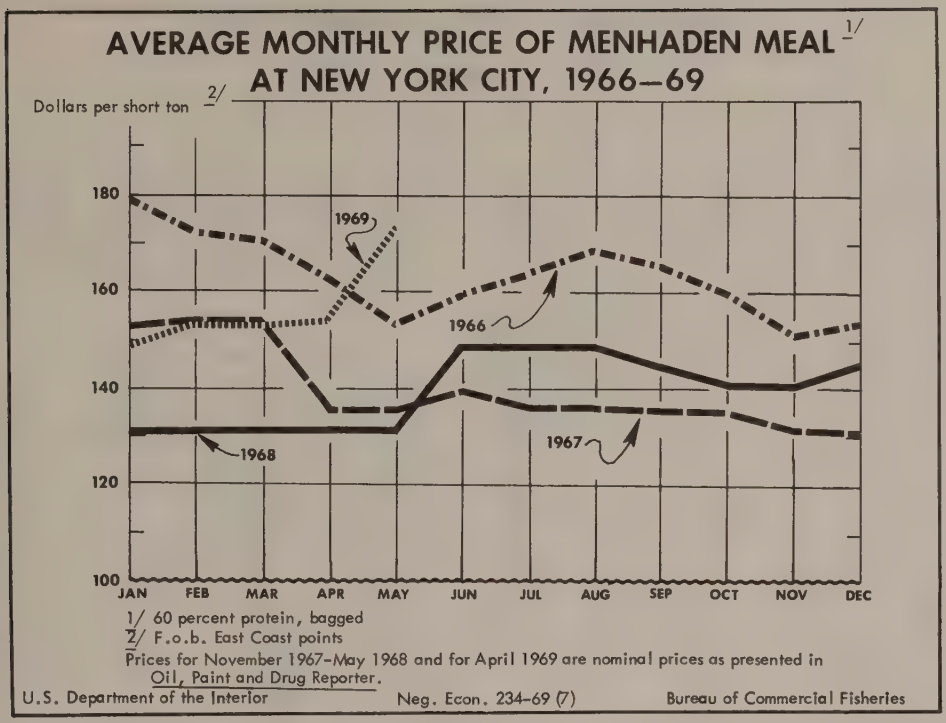

AVERAGE MONTHLY PRICE OF MENHADEN MEAL 1/
AT NEW YORK CITY, 1966–69
Dollars per short ton 2/
180
160
140
120
100
1969
1966
1967
1968
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
1/ 60 percent protein, bagged
2/ F.o.b. East Coast points
Prices for November 1967-May 1968 and for April 1969 are nominal prices as presented in Oil, Paint and Drug Reporter.
U.S. Department of the Interior
Neg. Econ. 234-69 (7)
Bureau of Commercial Fisheries

Figure 3

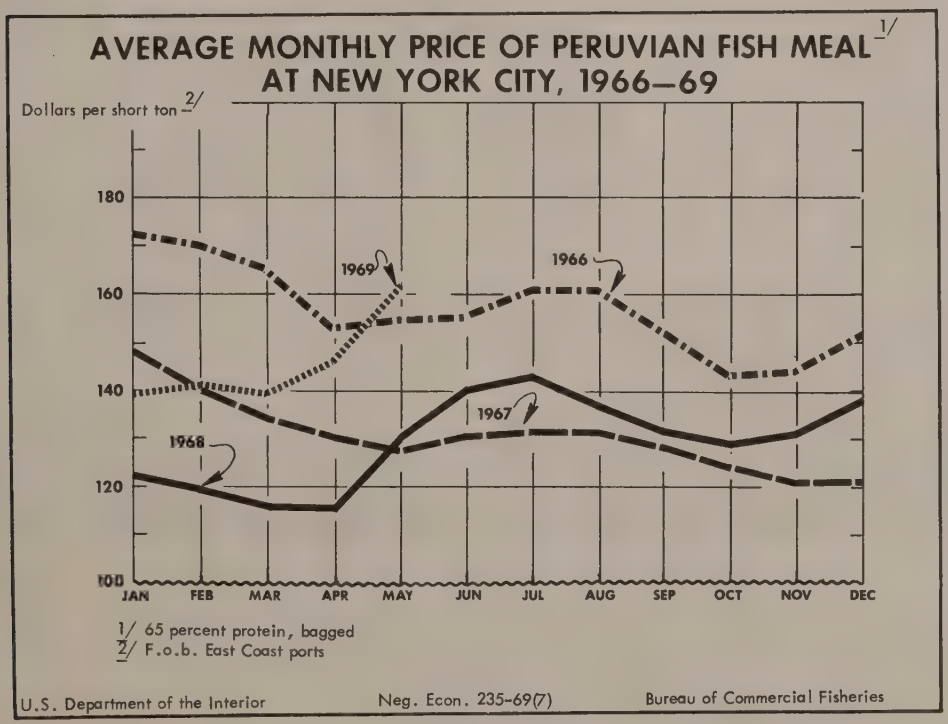


Figure 4

OUTLOOK: JULY-SEPTEMBER 1969

Demand

How much fish meal will be consumed in the United States in the third quarter of this year depends primarily on how the price situation develops during that period. In the early part of July, prices for 65 percent protein Peruvian fish meal at New York were $172 to $175 f.o.b. East Coast and Gulf ports. Prices for 60 percent menhaden meal in New York were $172 to $174 per ton f.o.b. East Coast and Gulf Coast points. Prices currently are at the highest level since the latter part of 1965 and the early part of 1966. If these relatively high prices continue through the third quarter, then consumption could fall considerably as it did during the period of high prices in 1965 and 1966.

Not only is the price of fish meal high in an absolute sense, but it is also high relative to prices of competing feed ingredients. In the first week of July the ratio between the price of Peruvian fish meal at New York City and the price of soybean meal at Decatur was 1.97:1, or the highest ratio since that period in 1965-66 of high prices and low consumption.

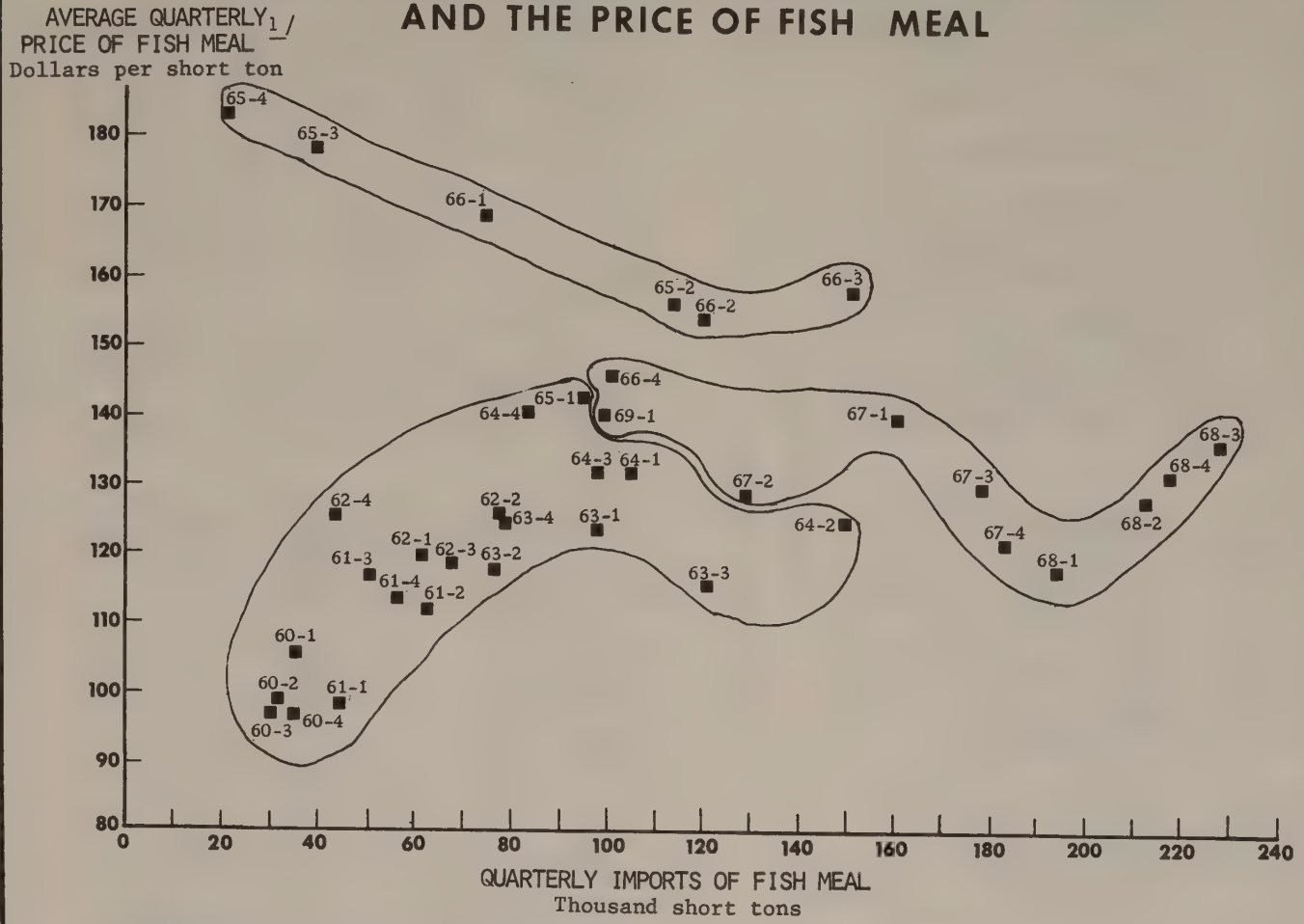
How prices can affect the use of fish meal in the United States is indicated in figure 5. This figure shows the relation between U.S. imports of fish meal and the average price of Peruvian fish meal from the first quarter of 1960 to the first quarter of 1969. The data are divided into three groups. The lower left-hand group covers the first quarter of 1960 through the first quarter of 1965. In this period, both imports and prices generally increased; i.e., demand for fish meal was increasing steadily.

The top group of data in figure 5 covers the second quarter of 1965 through the third quarter of 1966. In this period, the use of fish meal by feed formulators, and therefore imports, decreased as the price of fish meal increased. Conversely, as the price decreased, use increased. For every 1 percent increase in price, imports decreased at an average of about 7.5 percent. (Imports from Peru dropped off even more sharply with price increases.)

The final group of data for fourth quarter 1966 through first quarter 1969 also supports the relation described above; i.e., an increase in price generally will bring about a decrease in imports of fish meal. The use of linear programing by feed formulators has done much to accentuate this relation between fish meal prices and imports. By programing their feed mixes, formulators are able to be more selective in the ingredients they buy and the prices they pay for those ingredients.

Some feed formulators began decreasing their use of fish meal last April when fish meal prices began to increase. By July, some feed mixers had eliminated fish meal entirely from

RELATION BETWEEN U.S. IMPORTS OF FISH MEAL AND THE PRICE OF FISH MEAL



1/ Peruvian, 65 percent protein, bagged, f.o.b. East Coast ports.
Numbers on chart indicate year and quarter of observation. Lines delineate three periods; 1960-1 through 1965-1; 1965-2 through 1966-3; and 1966-4 through 1969-1.

U.S. Department of the Interior | Neg. Econ. 297-69(7) | Bureau of Commercial Fisheries

Figure 5

their finishing rations and decreased their use in starter rations. Correspondingly, these feed mixers switched to other high-protein sources such as soybean meal and meat and bone meal.

The decreased usage of fish meal is reflected in import figures for April and May of this year. Imports for April of this year were down 7 percent from the same month last year, and imports for May were down 36 percent from last year.

If the absolute price of fish meal and the price of fish meal in relation to the prices of competing ingredients remain at their current high level through the third quarter, we estimate that less than 250,000 tons of fish meal would be used in the third quarter, or at least one-fourth below the amount used in the third quarter of last year. This relatively light use is expected if prices are at a high level even though broiler placements in the second quarter of this year were 8 percent over the second quarter of last year and placements in the third quarter are expected to be about 7 percent over last year. Under the above price assumptions, imports are expected to make up slightly over two-fifths of this use, whereas last year in the third quarter imports made up slightly over two-thirds of apparent consumption.

Supply

Based on preliminary estimates of U.S. fish meal production for the first 5 months of the year we estimate that 105,000 to 125,000 tons of fish meal will be produced in the third quarter of 1969. Between 65 and 70 percent of this meal is expected to come from menhaden in the third quarter.

As mentioned in the previous section, if prices continue at their current level, we can expect imports to be down considerably from last year--90.000 to 110,000 tons compared to 228,400 tons in the third quarter of last year. Peru is expected to supply 65 to 70 percent of third quarter imports, and all of the FEO countries are expected to supply about 90 percent.

One of the factors that influence the world price of fish meal is the level of fish meal stocks held by major producing countries such as Peru and other FEO countries. We estimate that on July 1, Peru held 260,000 to 280,000 metric tons--about half the amount held by Peru at the same time last year. By the beginning of the third quarter, Peru's stocks probably will be less than 200,000 metric tons. Last year's stocks on October 1, were 408,300 metric tons, and the lowest on record were 31,200 metric tons on October 1, 1965. The comparatively low stocks probably will tend to hold prices at a relatively high level.

We estimate that Peru's exports for July-September 1969 will be 300,000 to 350,000 metric tons--

compared to 391,000 metric tons in the same period of 1968. We estimate that 19 to 22 percent of these exports will come to the United States.

Total FEO exports in the third quarter are estimated to be 500,000 to 600,000 metric tons with 16 to 20 percent of these exports coming to the United States. A greater percent of the fish meal exported by all the FEO countries including Peru probably will find its way to European countries this year owing to increasing animal consuming units in those countries and because of a more favorable relation between the price of fish meal and the prices of feed grains such as corn and wheat.

As mentioned in the review section no change in EC policy with respect to subsidization of nonfat dry milk or the use tax on fish meal is expected before the end of the third quarter of this year. Such actions normally would influence imports and the use of fish meal in those countries. Of course, the anticipation of such actions could still affect EC imports but probably not to any great extent.

FISH SOLUBLES

REVIEW: JANUARY-APRIL 1969

Supply

Supplies of Fish Solubles in January-April--14 Percent Above 1968

The total amount of fish solubles available for use in the United States in January-April of this year was 8,800 tons--up 14 percent from last year but down 13 percent from the 1964-68 average (table 19). Nearly all of the fish solubles were produced domestically.

Production of Fish Solubles--Nearly One-Third above 1968

The United States produced about 8,700 tons of fish solubles in the first 4 months of 1969--up 30 percent from 1968 and up 6 percent from the 1964-68 average (table 20). Nearly 60 percent of the solubles produced in the first 4 months of this year were produced in April.

About one-fourth of domestic solubles was made from menhaden in 1969, and almost all of the menhaden solubles were produced in the Gulf Coast area.

Imports of Fish Solubles--A Negligible Amount in the First 4 Months

Imports of fish solubles into the United States have never been very great. In the first 4 months of 1969, only 35 tons were imported--compared to about 1,000 tons in 1968 and a 1964-68 average of 1,900 tons (table 21).

Table 19.--Total fish solubles available in the United States: production plus imports, by month, 1962-69

Month	1962	1963	1964	1965	1966	1967	1968[1]	1969[1]
				Thousand short tons				
January	2.1	1.7	1.9	1.8	1.6	2.0	0.6	0.8
February	3.8	1.7	1.4	2.8	1.8	1.2	0.7	1.4
March	2.3	3.1	1.2	1.3	3.8	2.1	2.3	1.5
April	3.6	4.3	4.3	3.9	5.0	6.6	4.3	5.1
May	14.7	16.1	13.2	10.9	9.4	7.2	6.4	
June	22.5	14.4	19.1	18.0	15.3	13.6	11.2	
July	21.3	15.5	19.5	18.7	14.1	12.5	14.9	
August	16.4	19.0	14.8	18.2	12.8	12.3	12.0	
September	12.4	11.7	10.1	9.0	9.9	6.8	10.2	
October	13.6	7.8	5.3	6.8	5.4	5.1	6.7	
November	4.7	5.1	4.0	5.9	5.9	5.5	4.5	
December	2.1	6.7	3.0	2.6	2.6	3.5	3.0	
Total[2]	119.5	107.3	97.8	99.9	87.7	78.3	76.8	

[1]Preliminary.
[2]Figures may not add to total because of rounding.

Table 20.--U.S. production of fish solubles by month, 1962-69

Month	1962	1963	1964	1965	1966	1967	1968[1]	1969[1]
				Thousand short tons				
January	1.8	1.6	1.5	1.2	1.4	1.5	0.5	0.8
February	1.6	1.5	0.9	1.1	1.8	1.1	0.6	1.4
March	2.0	2.0	1.0	1.1	3.6	2.0	1.6	1.4
April	3.3	4.1	3.9	3.6	3.6	4.8	4.3	5.1
May	14.4	15.7	12.9	10.7	8.2	6.9	6.3	
June	21.6	14.1	18.9	17.8	15.1	13.5	11.1	
July	21.0	15.2	18.0	18.6	13.9	12.4	14.8	
August	16.0	18.7	14.7	18.0	12.7	12.2	11.9	
September	12.2	11.5	9.9	8.8	9.8	6.6	10.0	
October	13.3	7.4	5.1	6.7	5.3	4.9	6.5	
November	4.3	4.9	3.8	4.7	5.6	5.3	4.4	
December	1.7	3.5	2.7	2.5	2.4	3.4	2.9	
Total[2]	113.2	100.2	93.3	94.8	83.4	74.7	75.1	

[1]Preliminary.
[2]Figures may not add to total because of rounding.

Table 21.--U.S. imports of fish solubles by month, 1962-69

Month	1962	1963	1964	1965	1966	1967	1968	1969[1]
	Thousand short tons							
January	0.3	0.1	0.4	0.6	0.2	0.5	0.1	[2]
February	2.2	0.2	0.5	1.7	[2]	0.1	0.1	-
March	0.3	1.1	0.2	0.2	0.2	0.1	0.7	[2]
April	0.3	0.2	0.4	0.3	1.4	1.8	0.1	-
May	0.3	0.4	0.3	0.2	1.2	0.3	0.1	
June	0.9	0.3	0.2	0.2	0.2	0.1	0.1	
July	0.3	0.3	1.5	0.1	0.2	0.1	0.1	
August	0.4	0.3	0.1	0.2	0.1	0.1	0.1	
September	0.2	0.2	0.2	0.2	0.1	0.2	0.2	
October	0.3	0.4	0.2	0.1	0.1	0.2	0.2	
November	0.4	0.2	0.2	1.2	0.3	0.2	[2]	
December	0.4	3.2	0.3	0.1	0.2	0.1	0.1	
Total [3]	6.3	7.1	4.5	5.1	4.3	3.7	1.8	

[1] Preliminary.
[2] Less than 50 tons.
[3] Figures may not add to total because of rounding.

Demand

Declining prices of fish solubles in the first 5 months of 1969 indicated a relatively weak U.S. demand for solubles. The relatively low U.S. prices probably were a major factor contributing to the extremely low imports in the first part of 1969.

Prices of menhaden solubles fell from an average of $51.25 per ton f.o.b. East Coast plants in January, to an average of $47.50 per ton in May (table 22 and figure 6). The May price is the lowest since July of 1961. The average for June was $49.25 per ton.

Table 22.--Average monthly price of menhaden solubles[1] f.o.b. East Coast plants, 1964-69

Month	1964	1965	1966	1967	1968	1969
	Dollars per short ton					
January	75.00	58.60	66.25	80.85	60.50	51.25
February	75.00	59.40	66.50	79.00	63.75	51.25
March	62.25	61.25	66.70	70.75	61.25	49.40
April	62.25	56.25	68.75	64.60	56.25	47.75
May	62.25	53.75	68.75	64.00	54.05	47.50
June	62.25	55.75	68.75	64.40	53.75	49.75
July	62.25	56.85	68.75	64.05	53.50	
August	61.95	60.00	68.75	62.85	52.50	
September	61.20	61.25	72.50	61.25	51.90	
October	61.05	63.95	78.75	60.75	51.50	
November	61.25	65.25	79.25	60.00	51.55	
December	61.25	66.25	81.90	60.00	51.25	
Average[1]	62.00	58.30	70.75	63.25	52.90	

[1]In tank cars; prices quoted at New York City.
[2]Weighted average.

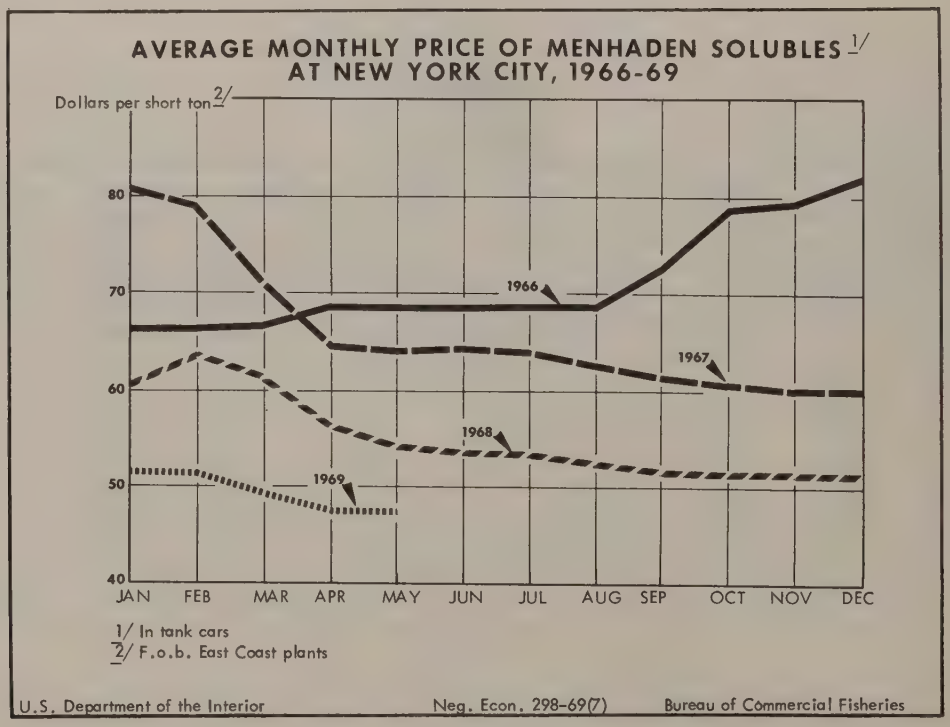


Figure 6

OUTLOOK: JULY-SEPTEMBER 1969

Demand

Two factors point to a possible increase in the demand for fish solubles through the third quarter of 1969: (1) a favorable relation between the price of fish solubles and prices of competing products, and (2) an increase in the apparent consumption of fish solubles the first 5 months of this year. In May, apparent consumption of fish solubles was about 11,100 tons--up 77 percent from last year. The January-May total for this year was up 42 percent over last year.

Supply

Based on production in the first part of the year, we estimate that 35,000 to 42,000 tons of fish solubles will be made in the third quarter of 1969. About 80 percent of this production will be from menhaden. Last year, 34,800 tons of fish solubles were made in the third quarter.

FISH OIL

REVIEW: JANUARY-APRIL 1969

Supply

Fish Oil Stocks on May 1--Down Two-Fifths from the Same Time Last Year

Stocks of fish oil on May 1, 1969, were 39.1 million pounds--down 39 percent from 1968 and down 34 percent from the 1964-68 average for May 1 stocks (table 23). On January 1 of this year, stocks were 104.6 million pounds. Heavier than usual exports caused stocks to decrease to the May 1 figure of 39.1 million pounds. The May 1 stocks were the lowest since 1961.

U.S. Fish Oil Production--About Average for January-April

The United States produced 7.4 million pounds of fish oil in January-April 1969--up 30 percent from 1968 but down slightly from the 1964-68 average for January-April (tables 24 and 25). About 58 percent of the fish oil was made from menhaden--compared to 44 percent last year (table 25).

Table 23.--U.S. stocks of fish oil at the beginning of the month, 1964-69[1]

Month	1964	1965	1966	1967	1968	1969[2]
	Million pounds					
January	96.9	70.9	100.4	99.4	80.0	104.6
February	60.4	68.6	85.4	97.2	83.3	95.6
March	47.0	55.2	75.0	90.8	61.0	67.3
April	42.2	50.4	60.5	62.2	55.8	53.9
May	43.9	54.6	60.3	73.4	64.4	38.2
June	46.7	69.0	63.1	97.4	69.1	39.1
July	55.5	80.9	64.7	100.7	82.4	
August	66.8	103.3	80.4	102.4	103.6	
September	78.0	136.2	87.9	103.2	122.5	
October	87.7	110.9	111.0	95.9	132.9	
November	66.9	101.7	102.1	102.4	123.0	
December	75.2	111.4	120.0	99.4	104.1	
Average	63.9	84.4	84.2	93.7	90.2	

[1]Includes mammal oil other than sperm oil, and includes hydrogenated fats and other fats and oils "in process."
[2]Preliminary.

Source: Current Industrial Reports: Fats and Oils, Series M20K, U.S. Department of Commerce, Bureau of the Census.

Table 24.--U.S. production of fish oil by month, 1962-69

Month	1962	1963	1964	1965	1966	1967	1968	1969[1]
	Million pounds							
January	0.8	0.5	0.5	0.6	0.4	1.2	0.6	0.9
February	0.4	0.4	0.2	0.5	0.2	0.6	0.3	0.5
March	0.4	0.4	0.7	0.7	1.0	0.9	0.6	0.6
April	5.7	6.5	4.4	10.6	5.5	3.6	4.2	5.4
May	33.4	33.5	29.9	23.2	19.3	9.4	10.3	
June	54.9	28.2	42.9	41.6	34.7	20.5	22.0	
July	47.7	29.0	33.8	41.6	29.6	21.6	36.8	
August	33.4	34.6	28.4	37.8	22.5	22.4	31.1	
September	31.2	21.2	19.8	18.1	20.5	13.6	27.4	
October	39.0	15.0	5.6	9.5	7.8	9.3	21.0	
November	8.3	10.1	8.3	8.2	16.4	13.5	12.3	
December	0.7	6.4	5.7	3.1	6.8	5.8	6.5	
Total	255.9	185.8	180.2	195.5	164.7	122.4	173.1	

[1]Preliminary.

Table 25--U.S. production of fish oil by raw material source, January-April, 1964-68 average, 1968 and 1969

Source	1964-68 average		1968		1969[1]	
	Million pounds	Percent	Million pounds	Percent	Million pounds	Percent
Alewives	0.6	7.9	-	-	-	-
Groundfish	0.2	2.6	[2]	-	[2]	-
Herring	0.4	5.3	0.3	5.3	0.4	5.4
Menhaden	4.4	57.9	2.5	43.8	4.3	58.1
Tuna, mackerel, and anchovies	1.2	15.8	1.1	19.3	1.2	16.2
Unclassified	0.8	10.5	1.8	31.6	1.5	20.3
Total	7.6	100.0	5.7	100.0	7.4	100.0

[1]Preliminary.
[2]Included in "unclassified".

Demand

U.S. Consumption of Fish Oil--5 Percent above 1968

The United States used 11.2 million pounds of fish oil in January-April 1969--up 5 percent from last year but down 15 percent from the 1964-68 average (table 26). These figures do not include sperm oil. In the United States, fish oil is used in such products as lubricants and protective coatings.

Exports of Fish Oil Nearly Triple

The United States exported 53.8 million pounds of fish oil in the first 4 months of 1969--nearly triple the amount exported in the same period in 1968 and more than double the 1964-68 average (tables 27 and 28). About 38.3 million pounds or 71 percent of total exports went to West Germany and the Netherlands. Last year, only 17 percent of the very low total exports went to the EC countries in the first 4 months. The increased demand for fish oil in the EC countries probably is a result of the recent proposal for a use tax on fish and vegetable oils. The purpose of the use tax is to increase the cost of producing margarine so that butter will be more competitive. Butter stocks in the EC countries are now at an all time high.

As in previous years, nearly all of the fish oil exported was menhaden.

Table 26.--Industrial use of fish oil in the United States, by month, 1962-69[1]

Month	1962	1963	1964	1965	1966	1967	1968	1969[2]
	Million pounds							
January	5.2	5.0	3.9	3.2	2.4	2.9	2.6	1.8
February	5.0	3.8	3.9	3.2	3.5	2.8	2.6	3.1
March	5.3	3.9	3.9	3.3	3.3	2.8	3.0	3.1
April	5.3	4.0	4.6	3.4	3.5	4.1	2.5	3.2
May	5.5	4.2	4.2	3.0	3.7	3.1	2.6	
June	6.3	4.7	4.0	4.0	3.8	3.3	2.5	
July	5.0	5.0	3.4	3.2	2.7	3.0	2.7	
August	5.0	4.6	4.7	4.5	3.7	3.1	2.2	
September	5.2	4.2	4.2	4.3	3.9	3.2	2.8	
October	5.3	5.0	3.8	3.9	2.5	2.4	2.5	
November	4.8	3.7	3.6	4.4	2.7	2.5	2.4	
December	5.0	4.0	3.5	4.1	3.1	2.6	1.6	
Total[3]	62.9	52.1	47.7	44.5	38.8	35.8	30.0	

[1]Includes mammal oil other than sperm oil.
[2]Preliminary.
[3]Figures may not add to total because of rounding.

Source: Current Industrial Reports: Fats and Oils, Series M20K, U.S. Department of Commerce, Bureau of the Census.

Table 27.--U.S. exports of fish oil by month, 1962-69

Month	1962	1963	1964	1965	1966	1967	1968	1969[1]
	Million pounds							
January	0.5	0.1	0.2	0.1	2.3	17.9	0.9	4.0
February	21.6	2.4	23.5	0.1	4.2	[2]	6.0	8.9
March	19.1	44.4	0.2	11.4	9.9	10.5	12.6	19.8
April	10.3	28.5	22.8	0.1	0.1	[2]	0.1	21.1
May	6.5	22.1	9.3	0.3	17.8	0.1	[2]	
June	4.9	0.3	0.1	18.1	12.9	0.8	[2]	
July	0.1	29.3	40.5	16.2	19.5	2.3	0.1	
August	33.3	37.5	9.6	21.2	6.1	24.8	7.0	
September	0.2	22.4	14.2	13.5	[2]	10.2	3.4	
October	26.1	41.9	19.8	10.8	4.3	5.7	11.4	
November	0.2	0.1	0.1	0.2	0.1	2.2	1.8	
December	0.2	33.3	11.1	11.8	0.1	2.3	21.8	
Total	123.0	262.3	151.4	103.8	77.3	76.8	65.1	

[1]Preliminary.
[2]Less that 50,000 pounds.

Table 28.--U.S. exports of fish oil by country of destination, January-April, 1964-68 average, 1968, and 1969

Country	1964-68 average		1968		1969[1]	
	Million pounds	Percent	Million pounds	Percent	Million pounds	Percent
Canada	0.4	1.6	1.4	7.1	0.4	0.7
Netherlands	6.2	25.2	3.4	17.2	31.6	58.7
Sweden	11.4	46.4	14.9	75.6	8.4	15.6
United Kingdom	2.0	8.1	-	-	[2]	-
West Germany	3.5	14.2	-	-	6.7	12.5
Other	1.1	4.5	0.1	0.1	6.7	12.5
Total[3]	24.6	100.0	19.7	100.0	53.8	100.0

[1]Preliminary.
[2]Less that 50,000 pounds.
[3]Figures may not add to total because of rounding.

Prices

Average Price of Menhaden Oil--Climbed 20 Percent in 4 Months

The average price of menhaden oil as quoted at New York City increased from 4.4 cents per pound, f.o.b East Coast plants, in December to 5.3 cents per pound in April (table 29 and figure 7). Prices dropped to about 5.2 cents per pound in the middle of June but had increased to 5.25 cents by July 1. The average price for May this year was the same as last year--5.25 cents per pound.

European prices for fish oil also increased in the first 4 months of this year. One of the primary reasons for the increase in fish oil prices in Europe and the United States was an increase in the demand for fish oil. Consumption of U.S. fish oil both in the United States and in Europe increased in the 4-month period in spite of the fact that prices of competing oils declined relative to the price of fish oil.

Table 29.--Average monthly price of menhaden oil[1] f.o.b. East Coast plants, 1964-69

Month	1964	1965	1966	1967	1968	1969
	Cents per pound					
January	8.40	9.15	9.50	8.90	6.00	4.70
February	8.35	9.50	9.70	8.90	6.10	5.00
March	8.50	9.50	9.75	8.60	5.75	5.20
April	8.75	9.50	9.75	7.20	5.35	5.30
May	8.50	9.45	9.75	6.90	5.25	5.25
June	8.65	9.15	9.60	6.95	5.25	5.20
July	8.75	8.95	9.40	6.70	4.85	
August	8.80	9.30	9.00	6.00	4.55	
September	9.05	9.50	9.45	5.80	4.40	
October	9.20	9.50	9.45	6.00	4.45	
November	9.40	9.50	9.20	6.00	4.40	
December	9.40	9.50	8.90	6.00	4.40	
Average[2]	8.80	9.25	9.40	6.40	4.70	

[1]Crude oil in tank cars; prices quoted at New York City.
[2]Weighted average.

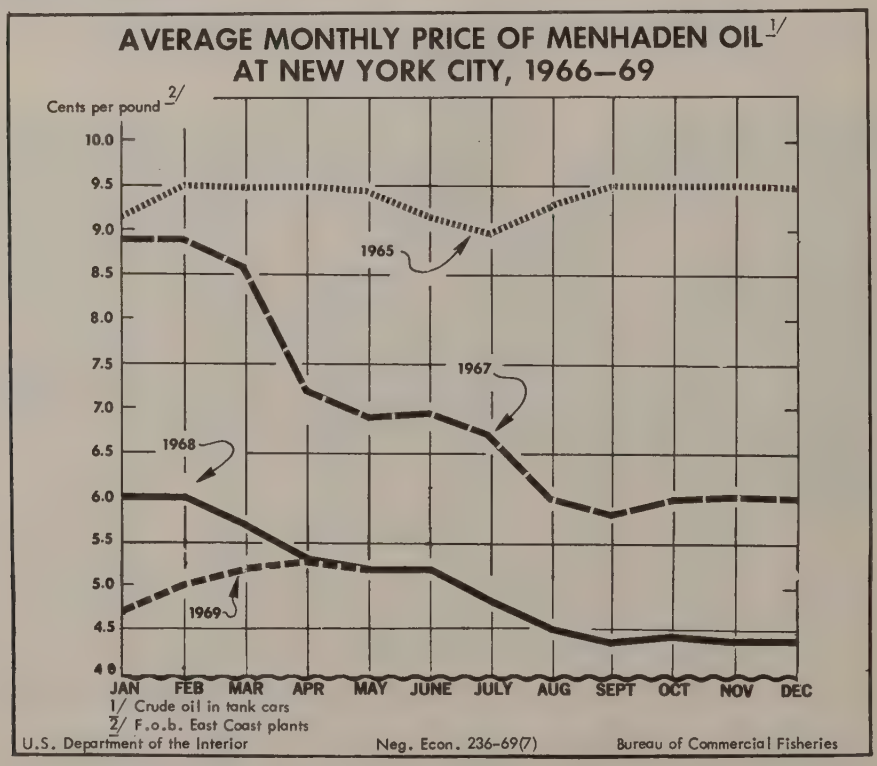


Figure 7

OUTLOOK: JULY-SEPTEMBER 1969

Demand

Both annual and third quarter use of fish oil have declined steadily since 1961. In the third quarter of 1967, the United States used 9.3 million pounds of fish oil in the production of protective coatings, lubricants, and other products. In 1968, third quarter use dropped to 7.7 million pounds. Consumption in 1969 is expected to be more than in 1968. Based on the ratios of the price of fish oil to the prices of crude linseed, soybean, tall, and tung oil, estimated use in July-September 1969 is 8 to 12 million pounds.

Annual exports of fish oil have declined steadily over the last 6 years. Quarterly exports have been more sporadic, with third quarter exports varying from 10.5 million pounds last year to 89.2 million pounds in 1963. We estimate exports in the third quarter of this year to be at least double last year's 10.5 million pounds.

As explained earlier, the use tax on fish and vegetable oils being discussed by the EC Commission probably will not go into effect this year. Therefore, imports of fish oil into the EC countries probably will continue to be as heavy as in the first part of the year.

Supply

Domestic production of fish oil is estimated to be 75 to 95 million pounds in the third quarter of 1969, with about 85 percent of this oil coming from menhaden. In the third quarter of 1967, 57.6 million pounds of fish oil were produced, and last year 95.2 million pounds were produced.

Since domestic use plus exports is not expected to be over 50 million pounds in the third quarter, and domestic production is estimated to be 75 to 95 million pounds, stocks likely will increase at least 25 million pounds during the 3-month period. Any imports during the period will increase these stocks. Imports are not currently reported on a monthly basis.

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